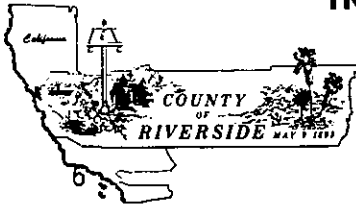


INTER-DEPARTMENTAL LETTER



COUNTY OF RIVERSIDE

PLANNING DEPARTMENT

July 18, 1989

TO: Supervisor Dunlap - Second District
Tallulah Sherer - Admin. Assistant

FROM: Steven A. Kupferman - Engineering Geologist
Planning Department

RE: Hubbs Quarry - Stringfellow area
Reclamation Plan No. 123

A handwritten signature, likely of Steven A. Kupferman, is written in ink next to the "FROM:" line.

The Planning Department determined that the subject quarry operation has a vested right to conduct surface mining operations per the Surface Mining and Reclamation Act of 1975 and Riverside County Ordinance No 555.

Vested rights operations are required to submit reclamation plans to the Planning Department by March 31, 1988. The Hubbs quarry reclamation plan was submitted to the Planning Department on October 23, 1987. The reclamation plan was reviewed and further information was requested from the applicant. This information has not yet been received. The reclamation plan for vested rights operations should be approved by the Planning Director by July 1, 1990. Continuation of the surface mining operation after July 1, 1990 is prohibited until a reclamation plan is approved by the Planning Director.

Any substantial change in the surface mining operation subsequent to January 1, 1976, shall require the granting of a surface mining permit. This surface mining permit application would be processed by the Planning Department.

SAK:a1

UPDATE

HUBBS QUARRY BLASTING
AND ITS POSSIBLE EFFECT ON STRINGFELLOW ACID PITS
JULY 19, 1989

PROVIDED BY
SUPERVISOR MELBA DUNLAP
RIVERSIDE COUNTY BOARD OF SUPERVISORS

RESEARCH AND INFORMATION COMPILED BY
TALLULAH M. SHERER
ADMINISTRATIVE ASSISTANT

5:10 Cal Tech
4/7/89
Mark Richards
Lake Elsinore
Geologist

4/27/89 - Update on Hubbs Quarry

- Advised that there was a meeting on 4/25/89 with Paul Hubbs and his attorney, John Boyd; Steve Kupferman, Planning Department Geologist; Tony Ramsamooj from Building and Safety; Karen Watts and Bob Pepper from County Counsel.
- Building and Safety considered closing Hubbs operation because he had not filed a "Special Inspection Report." County Counsel said "NO." By State law, he still has until 7/1/90 to complete and correct his Reclamation Plan and no "Special Inspection Report" can be filed until the Reclamation Plan is approved by the Planning Department.
- If Hubbs significantly increases or expands his operation, this could affect his operation so far as the County is concerned, and it could possibly give County the authority to suspend his operation.
- Hubbs is to file a report with the Assessor each year indicating the tonnage removed each year. This report is what they base their assessment on for tax purposes. Their last report shows some change, but the question remains..."What is a significant change?"
- Both State and Local geologists still feel there is no problem relative to Stringfellow because of the method used in blasting (domino effect).
- They hope they have convinced Hubbs that things would go better for him if he would complete the necessary paperwork required by the County ASAP.
- Steve will keep in touch with updated information.

-
- Detective Posey, Sheriff's Bomb Squad inspected area. Baxter Drilling and Blasting is the company working for Mr. Hubbs. Has all the proper permits. Sheriff's Department has had no complaints about company. Has a permit in Riverside County since 1984.
 - Last blast was in April 1989. Blast did not hit a scale. No explosive magazines stored at Hubbs' operation.
 - Spoke with Estella Estrada at McCutchen Construction, 3940 Pyrite. She states the blasting is no problem for them. The only vibrations they feel are when trucks move large boulders and dump them off the trucks.

-
- I have personally contacted all of the departments listed on the following page and have been advised by each of their representatives that the County has no reason or jurisdiction at this time to stop the blasting at Hubbs' Quarry, and there is no indication from their reports/monitoring, etc., that the blasting is causing further problems as the Stringfellow Acid Pits.

COUNTY DEPARTMENT INVOLVED IN CHECKING BLASTING OPERATIONS AND ROCK AND QUARRY
OPERATIONS

Sheriff

Fire Department

Planning Department

Building and Safety, Land Use Division

Health Department

Assessor

Sheriff issues County Permit for blasting purposes and inspects areas.

Fire Department within jurisdiction is notified prior to blasting.

Planning Department approves State-required reclamation plan.

Building and Safety Department approves Special Inspection Report filed by applicant.

Health Department may become involved if there are environmental health issues
such as Stringfellow Acid Pits.

Assessor receives Aggregate Production Reports annually and bases assessment for
tax purposes from that report.

OBTAINING BLASTING PERMITS IN RIVERSIDE COUNTY

1. Must have State Blasting License issued by CAL OSHA.
2. Must show proof of insurance.
3. Sheriff issues County Permit based on information required under their permit system. They do a complete background check through State Department of Justice.

Each individual on the application must be fingerprinted and photographed every year when the application is renewed.

Company must supply Sheriff with complete information on all vehicles used in the business, e.g. vehicle ID numbers and license numbers.

4. County permit must be renewed annually.
5. Sheriff's Bomb Squad checks blasting areas and inspects any magazines or bunkers.

RIVERSIDE COUNTY PLANNING DEPARTMENT

October 9, 1990

Paul Hubbs Construction Company
140 West Valley Boulevard
Rialto, CA 92376

Attention: Mr. Jay Hubbs

Subject: Reclamation Plan No. 123
Pyrite (Stringfellow) Quarry
A.P.N.: 173-170-006,013,015
173-180-003,008,009
Glen Avon Area

Dear Mr. Hubbs:

The Planning Department has completed its review of the Reclamation Plan for the subject aggregate surface mining operation, and hereby approves the plan in accordance with Riverside County Ordinance No. 555.

The plan approval is subject to the following attached documents:

1. Reclamation Plan Application dated October 21, 1987.
2. Reclamation Plan, Pyrite Quarry, Amended No. 1, dated July 3, 1990, with Sheet no. 3, revised August 30, 1990.
3. Reclamation Plan Description, dated July 3, 1990.
4. "Preliminary Engineering Geology Investigation of Slope Stability, Pyrite Quarry Reclamation Plan, Glen Avon Area, Riverside County, CA," by Gary S. Rasmussen and Assoc., dated July 3, 1990.
5. Letter dated August 13, 1990 from County of Riverside, Transportation Department.
6. Memorandum dated July 23, 1990 from the Environmental Health Services Division of the Health Department.
7. Letter dated November 4, 1987 from Riverside County Fire Department.
8. Plan check sheet dated August 21, 1990 from Department of Building and Safety.
9. Letter dated August 24, 1990 from the Riverside County Flood Control and Water Conservation District.

Reclamation Plan No. 123
October 9, 1990
Page 2

10. Letter dated September 11, 1990 from State of California, Department of Health Services.

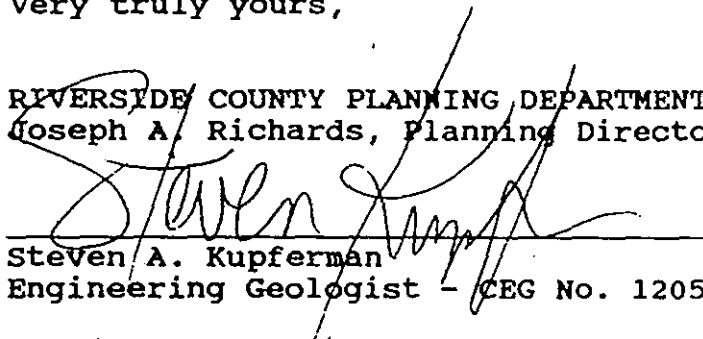
Please note that based on Section 12 of Riverside County Ordinance No. 555, this surface mining operation operates as a vested rights operation.

Any substantial changes to the mining operation shall require the granting of a Surface Mining Permit pursuant to Ordinance 555. You should also be aware that upon granting of this Reclamation Plan approval, you shall apply for a Special Inspection Permit with the Department of Building and Safety, as required in the Ordinance.

Please contact myself or Tony Ramsamooj in the Grading Division of the Department of Building and Safety if you have further questions in this matter.

Very truly yours,

RIVERSIDE COUNTY PLANNING DEPARTMENT
Joseph A. Richards, Planning Director



Steven A. Kupferman
Engineering Geologist - CEG No. 1205

SAK:jb

cc: Tony Ramsamooj - Department of Building & Safety
Jim Pompy - California Division of Mines & Geology
Beth Jines - Department of Health Services
Supervisor Melba Dunlap - Attn.: Tallulah Sherer,
Administrative Assistant
Joe Rank - County Counsel

STRINGFELLOW QUARRY
SURFACE MINING RECLAMATION PLAN

EXHIBIT NO. _____
Rec'd CASE NO. 123

Prepared by: Tom Dodson & Associates
for
Paul Hubbs Construction Company

Project Description

A. Description of Mineral Commodity

The mining operations in the local area have apparently been conducted since the turn of the century. The existing Stringfellow quarry has been in operation for approximately 40 years. Figures 1 & 2 show the location of the property. The mineral commodity being mined at this quarry is granite rock.

The main facility on the property is a large open pit rock quarry called Stringfellow Quarry. (See figure 3) Granite rock is quarried at this location and used for a variety of purposes, primarily riprap for flood control projects. The operating area of the quarry consists of one major working bench and face (quarry wall) that encompasses approximately 10 acres. The attached maps show location and topography of the site and the drawings clearly define the quarry's present configuration.

B. General Geology and Deposits Being Mined

The Stringfellow (originally Shannahan) quarry is located in the Jurupa Mountains which are considered the northern most extension of the Perris fault block. Most geologists consider the Jurupa Mountains as part of the crystalline granitic rocks that comprise the southern California batholith. (The primary reference used in compiling geologic information for the site is "Geology of the Jurupa Mountains San Bernardino and Riverside Counties, California, Edward M. Mackevett. Special Report 5, Department of Natural Resources, Division of Mines, February, 1951.)

The existing quarry is located in a granodiorite ridge that is typical both of the local area and of the southern California batholith. Mackevett termed the quarry material the Woodson Mountain granodiorite. Immediately adjacent to the quarry on the east is an outcrop of typical quartzbiotite gneiss. The rock of primary interest is the Woodson Mountain granodiorite.

As indicated above, the Jurupa Mountains are considered the northern most outcrop of the southern California batholith and may represent a "structural transition between the Peninsular Ranges to the south and these of the Transverse Ranges to the north." The general conclusion is that local faults occur in the Jurupa Mountains, but no large, continuous faults are known to exist. As to origin, the granitic material appears to be Cretaceous or younger in origin, whereas the adjacent metasedimentary gneiss is considered to be between Triassic or Paleozoic in age.

The southeastern portion of the quarry site is covered with stream deposited alluvium derived from the drainage basin extending to the northeast. This material is typical coarse to medium sand deposited in the upper portion of a drainage basin.

C. The following is a limited description of the natural environmental and land use characteristics for the project site and adjacent area:

1. Geology and Topography. See Section B above for a discussion of the historical, structural and lithologic characteristics of the site. The quarry is located at the end of a granitic ridge. The eastern portion of the site is flat and includes both alluvial area and a portion of the old working bench. The quarry wall is over 100 feet high at its center with one real working bench. Elevation ranges from approximately 1000 feet to a little above 1100 feet. The rest of the area within the reclamation boundary consists of steep sloped ridge area.

2. Hydrology. The project site does not contain any permanent surface water. During the winter precipitation period, sheet flow occurs off of the undisturbed ridge area and the quarry face. The alluvial area is primarily an area of percolation, ie., groundwater recharge. The eastern most portion of the site contains an intermittently flowing stream with a drainage area of approximately one square mile. Data on surface water quality indicates that some contamination from the Stringfellow acid waste pits has affected the winter stream flow in the channel. (Refer to "Engineering Study of Stringfellow Class I Disposal Site", Montgomery, James M. Consulting Engineers, Inc., October, 1976.) The future quality of surface water in the stream will depend upon how effective current cleanup measures turn out to be.

Groundwater is not known to occur in the granitic portion of the quarry site. It does occur on the eastern portion of the site in the alluvium. Groundwater in this area is known to be contaminated (refer to Montgomery report) by underflow out of the Stringfellow Class I site. The exact extent of this contamination is not presently known. The quarry site obtains its water for operations from a well located approximately one quarter mile south of the quarry site. Water quality data (from the reference above and from "The Stringfellow Industrial Waste Disposal Site: A Technical Assessment of Environmental Impact" California Dept. of Health Services, Hatayama, et. al. March 1979) from this well is not conclusive regarding contamination. Sampling will have to be continued in the future to ensure the water is acceptable for continued industrial use.

3. Soils. The soils on the property are identified as being in the Cienega-Rock Land Association (Data from Western Riverside Area Soil Survey, Soil Conservation Service). These soils are generally found on upland rocky areas with steep slopes. They are generally shallow, low fertility soils. The alluvial soil on the east portion of the site is a combination of Madera fine sandy loam and young alluvial soil. This is a capability III and IV type soil which will serve well for future reclamation. The Cienega soil is subject to erosion and on steep slopes severe erosion potential exists. These soils are too shallow to warrant stockpiling. The areas that have been quarried and/or disturbed have had all soil removed and the remaining material consists of rocks and weathered parent material.

4. Biotic Community. The quarry area is a blend of natural and non-native biotic communities. Undisturbed hill areas generally belong to the coastal sage scrub plant community. The quarry itself is devoid of vegetation and the alluvial area consists of native trees and exotics, especially red box (*Eucalyptus Polyanthemas*). In some alluvial areas "weedy" species have invaded and are the dominant plants. Common plants are identified in the Plant List Appendix A. No known rare, threatened or endangered species are known to inhabit this site. A species of annual mint, Pringle Monardella (*Monardella Pringlei*) is considered rare and may be located at springs in nearby areas. The absence of springs within the reclamation boundary precludes its presence on site.

The faunal community at this site is very complex. Field observations indicate a large population of small mammals (mice and rabbits) and a commensurate population of raptors and carnivores. Golden eagles are known to hunt in the area as well as owls. The trees in the area provide good potential nesting sites as well as hunting perches. Coyotes appeared to be the dominant carnivores based on filed observations. No rare, threatened or endangered species are known to inhabit the area. A list of species at the site is provided in Appendix B.

5. Land Use. Of the 60 acre site reserved for quarry operations in this reclamation plan, approximately one half has been disturbed by historic quarry operations. Access is provided by a paved extension of Pyrite Avenue. The site has an extensive equipment storage area, an explosives storage structure, working bench and quarry face. This area comprises approximately 30 acres. The rest of the site is relatively undisturbed. Adjacent uses are: West, open space and automobile dismantling yard; North, open space, an abandoned ordnance manufacturing area and the Stringfellow Class I disposal site, which has failed and is being reclaimed by the State; East, open space and an exisiting ordnance manufacturing facility; South, open space, operations building and weighing scales and ultimately Highway 60 and the Community of Glen Avon. In general this quarry is located in an area of uses that are compâtible with its operations.

Proposed Operations:

A. Quarry operations at the existing site have been ongoing since at least the 1930's. The present owner has operated the quarry since 1976. Stringfellow quarry has been operated intermittently since the present owner began operations. Based on existing rules and regulations under the Surface Mining and Reclamation Act the present operator has had a vested right of operations since 1976. Even though the only area requiring reclamation is the area quarried since 1976, the owner proposes to reclaim the whole quarry site at the end of operations. This is necessary since areas mined prior to 1976 are integrally tied to current operations.

B. The projected lifetime for this reclamation plan is 30-years. This is based on the intermittent operations of the quarry and a reasonable length of operation in which to initiate reclamation operations. Sufficient mineable rock lies adjacent to the quarry so that its operational lifetime could be extended if desired; however no plans presently exist to do this.

C. The present mining method is a multibench rock quarry operation.

D. Rock quarry operations are carried out intermittently at the Stringfellow site.

E.

1. Tonnage of mined material: Estimated as 10,000 TPY (tons per year)

2. Tonnage of waste overburden: A minimal amount of overburden is generated since almost all material will be used for construction operations. Estimated as 1,000 TPY.

3. Total tonnage to be handled: Estimated 11,000 TPY.

F. All quarry operations will be at or above the local surface level. Although not extending below the surface, the quarry will have walls or working faces that will result in vertical relief of from 100-200 feet at the end of the 30 year planning period.

G. No processing operations are conducted at the Stringfellow quarry. A rock crusher is used to reduce the size of rocks and to segregate them by size.

H. Current water consumption varies depending on the extent of operations. When rock is being quarried the operation consumes an estimated 5000 gallons per day. This water is used for dust control either during quarrying or during crushing operations.

MINING PLAN

A. The proposed progression of mining for the Stringfellow quarry is shown in Figures 4 through 6. Ten year increments are shown on the cross sections drawn in Figures 7 and 8. Ten year increments were selected because of the present limited use of Stringfellow quarry. At 10,000 TPY removal rate the ten year increments show a total of 100,000 tons of rock removed from the quarry face. Figure 6 shows the final contours after 30 years of operation and the removal of 300,000 tons of rock.

B. As discussed above, quarry operations have been conducted at Stringfellow for decades. Aside from heavy equipment and trucks for handling, loading and delivery of rock material, a part of the flat area adjacent to the quarry working area is used for storage of old equipment and equipment not currently being used. As necessary, additional equipment is brought to the quarry to meet operational requirements. As equipment is determined to be excess to needs it will be sold for scrap value.

C. Items C-1 through C-5 are maps that are provided in this report as Figures 1 through 8.

RECLAMATION PLAN

A. Refer to figures 7 and 8 for the cross-sections illustrating the quarry topography in its final form after 30 years. Note that even with 300,000 tons of projected rock removal the present quarry face is only modified a minor amount.

B. The area that will be reclaimed at the rock quarry is shown in Figure 3. Approximately 60 acres will be reclaimed based on 30 years of operation.

C. The rock quarry will remain essentially as it is now, a flat worked over area at the base of the high quarry working face. Some benches will be out into the working face as shown on the maps and cross-sections. In new working areas, benches at 40 feet intervals will be worked. If a decision is made to utilize the quarry area for alternative uses, several possible uses exist. Depending on future zoning the flat quarry floor would make an ideal industrial area, particularly for ordnance industry uses which are already located in the adjacent area. The quarry face will be unusable in the future except the bench areas which may be used for storage of small quantities of explosive. The whole face area, including the marsh area at the base of the quarry face, could also be designated as open space without adversely affecting use of adjacent flat areas for industrial purposes. The face, of course, can serve only as non-functional open space.

D. The amount of soil that will be disturbed during quarry activity over the 30 year period will be minimal. This is a result of the amount of exposed face available for quarry operations. The soil that will be disturbed on the top of the ridge is extremely poor, thin soil with no stock pile value. At the end of quarry operations the fine material, although not actually soil, will be available for emplacement on flat areas. With proper fertilization and management this material should serve as an adequate growing medium which will eventually evolve into soil.

E. Reclamation Methods, Sequence and Timing.

1. The initial reclamation effort will consist of implementing safety measures. Fences will be placed so as to prevent access to the quarry face within six months after approval of this plan. Fenced areas will be properly signed in English and Spanish. Areas designated for storage of equipment and for access to the working face will be fenced and access will be controlled.

2. Backfilling and grading: Vertical quarry faces or walls will not be reclaimed by this method. The quarry floor will be covered with fine materials remaining from quarry operations and imported topsoil as necessary. A depth of 1 to 2 feet will be spread by loaders and graded. Quarry face benches will be left with no surface cover and a gentle slope away from the quarry face where runoff will be allowed to flow down the face. This reclamation operation will be done at the end of the mining operation. Unless otherwise noted, all reclamation measures will be implemented within one year after mine closure. The existing vertical quarry face is very stable, as is typical in most granitic rock quarries. The walls will be scaled (loose material knocked off) and left in their final mined state. The existing face does not exhibit any joint patterns that would indicate future instability. If such a condition develops the slope will be modified to a safe non-hazardous angle and it will be properly stabilized by artificial means, if necessary. At the base of the main face a sufficient buffer area will be set aside to provide a rock fall space free of incompatible uses. Scaling and slope control will be undertaken at the end of operations.

3. The quarry operation will not generate any accumulative tailing pile. All materials will be consumed as generated except small quantities of fine material which will ultimately be used in reclamation. Material will be used as needed during the life of the quarry.

4. At present the only runoff from the quarry is on the face and then from the base of the cliff a small amount of runoff flows overland as sheet flow to the main runoff channel in Pyrite Canyon. Due to this unusual surface runoff setting at Stringfellow Quarry, it is deemed wiser to allow runoff to continue to flow down the face to the existing marsh habitat at its base. This option provides the best opportunity to control or minimize erosion by collecting flow at the base of the impermeable face and allowing it to flow as sheet flow from this location. If in the future the runoff increases, a channel can be constructed to the Pyrite Canyon main channel, approximately 1/3 mile distant.

5. As previously noted part of the quarry area is used to store old equipment. All usable equipment will be removed at the end of operations, if the quarry is closed. All other equipment and debris will be disposed of by the operator at a proper disposal or recycling facility

or it will be sold to a salvage operator. There are no structures to be concerned about, except one small explosive storage magazine. Clean up operations will continue throughout the operational life of the project. Final clean up will be completed within one year after quarry operations are terminated.

6. As far as is known no contaminants are generated at the Stringfellow quarry operation. Sediment from quarrying is deposited in the marsh area. The only other contaminant would be petroleum spilled accidentally during operations. Such spills would be minor and will be handled on a case-by-case basis.

7. Erosion potential at this quarry is minimal. Based on field observations the only erosion control measures required will be slope control on the face and management of flow from the wet area at the base of the face. As previously indicated a channel can be constructed if needed.

8. The only hazards directly caused by the quarry operations at Stringfellow will be the remaining vertical walls. (Note that the Stringfellow acid pits are located adjacent to the quarry and there may be residual hazards in the area caused by their presence). As described previously a fence set back 10-20 feet from the top of the vertical wall, will be installed. A barbed wire or chain length fence will be constructed around the whole top of the wall. The fence will be properly signed as a warning to any persons. At the base of the vertical face the area will be fenced and signed, noting the danger of falling rock.

Revegetation at the Stringfellow site will be restricted to the flat quarried area below the vertical face. This decision is made because the small benches will be graded to direct runoff to the front of the face to minimize overall erosion and this type of slope would cause any topsoil to be eroded. The flat area will be revegetated with a species mix as defined in Appendix C. Initial revegetation will be with native species but, if the area is utilized for alternative uses in the future, the use of exotic landscape species can be expected. Fertilizers and/or hydromulch will be used where necessary. The area will be surveyed after initial revegetation attempts and, if necessary, a follow up effort will be conducted.

10. Since all quarried material will be consumed as generated, this operation will not leave any waste piles onsite. All final slopes will be field reviewed and checked by an engineer to confirm their stability prior to the completion of the reclamation effort.

F. During operation of the quarry the following reclamation activities will be implemented.

1. Fences will be installed and properly signed. Two strand barbed wire will be used except in cases where chain length fencing is necessary.

2. A survey of rare, endangered and sensitive plant and animal species has already been prepared for this area. Although the marsh area at the base of face is manmade, it is a possible location for a rare annual mint, *Monardella Pringlei*, suspected to inhabit the local area. A survey of this area will be conducted in the first year following adoption of this reclamation plan.

3. All operating piles of quarry material will be maintained at a stable slope, and to the degree necessary, quarry walls will be periodically scaled to minimize the hazard from falling rock.

G. Because the whole quarry will be in operation and use during the period the reclamation plan is in effect, the major site reclamation will be undertaken at the end of the 30 year operation period. Should the quarry continue to operate after this period, the mining plan will be amended as necessary.

H. Reclamation will not permanently affect future quarry operations assuming Stringfellow is still economically viable at the end of the 30 year nominal operational period. Should the quarry be reopened after reclamation, it could disturb parts of the reclaimed area. Adverse alterations to the reclaimed area would be noted on a plan amendment and a new final reclamation plan would be established.

APPENDIX A

PLANTS

Common Name

Eucalyptus, red box
California Buckwheat
California Sagebrush
Black Sage
White Sage
California Encelia
Brittle Bush
Wild Oats
Rip-gut Brome
Squaw Bush
Laurel Sumac
Lemonade Berry
Poison Oak
Holly Leaf Cherry
California Pepper Tree
Deerweed
Brome Grass
Mexican Elderberry
Rattlesnake Weed
Doveweed
Valley Cholla
Gourd, Calabazilla
Tree Tobacco
Horehound
Castor Bean
Sunflower
Mustard
Star Thistle, Tocalote
Thistle

Generic Name

Eucalyptus polyanthemas
Eriogonum fasciculatum
Artemesia californica
Salvia melifera
Salvia apiana
Encelia californica
Encelia farinosa
Avena fatua
Bromus diandrus
Rhus trilobata
Rhus laurina
Rhus integrifolia
Rhus diversiloba
Prunus ilicifolia
Schinus molle
Lotus scoparius
Bromus rubens
Sambucus caerulea
Euphorbia polycarpa
Eremocarpus setigerus
Opuntia parryi
Cucurbita foetidissima
Nicotiana glauca
Marrubium vulgare
Ricinus communis
Helianthus annuus
Brassica geniculata
Centaurea melitensis
Cirsium sp.

PLANTS (continued)

<u>Common Name</u>	<u>Generic Name</u>
Wild Heliotrope	<u>Phacelia minor</u>
Wild Heliotrope	<u>Phacelia ramocissima</u>
Croton	<u>Croton californica</u>
Arroyo Willow	<u>Salix lasiolepis</u>
Jimsonweed	<u>Datura meteloides</u>
Western Sycamore	<u>Platanus racimosa</u>
Cattail	<u>Typha latifolia</u>
Sand-bur	<u>Ambrosia acanthicarpa</u>
Washington Palm	<u>Washingtonia robusta</u>
Palm (unknown)	?
Telegraph Weed	<u>Heterotheca grandiflora</u>
Mule Fat	<u>Baccharis viminea</u>
Morning Glory	<u>Calystegia macrostegia</u>
Chamise	<u>Adenostoma fasciculatum</u>
Buckwheat	<u>Eriogonum gracile</u>
Redberry	<u>Rhamnus crocea</u>
Tumbleweed, Russian Thistle	<u>Salsola iberica</u>
Giant Ryegrass	<u>Elymus condensatus</u>
California Fuschia	<u>Zauschneria californica</u>
Popcorn Flower	<u>Cryptantha sp.</u>
White Felt Plant	<u>Tetradymia comosa</u>
Mallow	<u>Malvastrum sp.</u>
Mustard	<u>Brassica sp.</u>
(none)	<u>Corethrogyne filaginifolia</u>
Sweet Bush	<u>Bebbia juncea</u>
Brickel Bush	<u>Brickellia arguta</u>
(none)	<u>Eriastrum sp.</u>
Nightshade	<u>Solanum sp.</u>
Hoaryleaf Ceanothus	<u>Ceanothus crassifolius</u>
Bush Mallow	<u>Malacothamnus fasciculatus</u>
Tarweed	<u>Hemizonia sp.</u>
Snakeweed	<u>Gutierrezia californica</u>
Hedge Nettle	<u>Stachys sp.</u>

APPENDIX B

VERTEBRATE WILDLIFE

Birds (confirmed)

Swainson's Hawk	<u>Buteo swainsoni</u>
Red-tailed Hawk	<u>Buteo jamaicensis</u>
Kestrel	<u>Falco sparverius</u>
California Quail	<u>Lophortyx californicus</u>
Mourning Dove	<u>Zenaidura macroura</u>
Anna's Hummingbird	<u>Calypte anna</u>
Hummingbird (unidentified)	?
Rock Wren	<u>Salpinctes obsoletus</u>
Bewicks Wren	<u>Thryomanes bewickii</u>
Western Kingbird	<u>Tyrannus verticalis</u>
Mockingbird	<u>Mimus polyglotus</u>
California Thrasher	<u>Toxostoma redivivum</u>
Loggerhead Shrike	<u>Lanius ludovicianus</u>
Western Meadowlark	<u>Sturnella neglecta</u>
White-throated Swift	<u>Aeronautes saxatalis</u>
House Finch	<u>Carpodacus mexicanus</u>
House Sparrow	<u>Passer domesticus</u>
Sage Sparrow	<u>Amphispiza belli</u>
Brown Towhee	<u>Pipilo fuscus</u>
Common Bushtit	<u>Psaltiriparus minimus</u>
Flycatcher (unidentified)	<u>Empidonax sp.</u>
Bullock's Oriole	<u>Icterus bullockii</u>
Owl 'droppings' (unknown)	?

Mammals (confirmed)

Black-tailed Hare (Jackrabbit)	<u>Lepus californicus</u>
Audubon Cottontail	<u>Sylvilagus audubonii</u>
California (Beechey) Ground Squirrel	<u>Otospermophilus beecheyi</u>

VERTEBRATE WILDLIFE

(continued)

Mammals (confirmed)

Mule Deer

Coyote

Feral Dogs

Odocoileus hemionus

Canis latrans

Canis canis

Reptiles (confirmed)

California Whiptail Lizard

Granite Spiny Lizard

Side-blotch Lizard

Cnemidophorus tigris

Sceloporus orcutti

Uta stansburiana

INFERRED VERTEBRATE WILDLIFE*

Mammals

Pacific Kangaroo Rat

Spotted Skunk

Striped Skunk

Grey Fox

Bobcat

Opossum

Deer Mouse

Western Harvest Mouse

Western Pipestrelle Bat

California Myotis Bat

Reptiles

Coast Horned Lizard

Western Fence Lizard

Western Rattlesnake

California Rosy Boa

California Striped Racer

Gopher Snake

* These species have previously been identified in similar habitats within three miles of the site, and/or it is considered reasonable that further research would verify their presence. Names given are commonly used in the literature.

INFERRED VERTEBRATE WILDLIFE

(continued)

Birds (Inferred*)

Cooper's Hawk

Great Horned Owl

Barn Owl

Ash-throated Flycatcher

Scrub Jay

American Goldfinch

Turkey Vulture

Killdeer

Robin

Common Raven

* various warblers, swallows, sparrows, and raptors

* These and many other species may be expected as vagrants, migrants, or occasional site users. Some also may be seasonal or year-round residents.

APPENDIX C

GRASS FOR COASTAL SAGE/VALLEY GRASSLAND

PLANTS FOR RESEEDING (GRASSES)

AUENA BARBATA	SLENDER OAT
AUENA FATUA	WILD OAT
BROMUS MOLLIS	SOFT BROME
BROMUS RUBENS	RED BROME
BROMUS DIANDRUS	RIPGUT BROME
FESTUCA MEGA LURA	FOXTAIL FESCUE
FESTUCA MYUROS	RATTAIL FESCUE
FESTUCA REFLEXA	FEW FLAVORED FESCUE
KOELERIA CRISTATA	PRAINE JUNEGRASS
*POA SCABELLA	PINE BLUEGRASS
POA ANNUA	ANNUAL BLUEGRASS
*STIPA PULCHRA	PURPLE STIPA
STIPA LEPIDA	FOOTHILL STIPA
*DOMINANTS	

HERBACEOUS PLANTS

SALVIA APIANA	WHITE SAGE
*SALVIA MELLIFERA	BLACK SAGE
SALVIA LEUCOPHYLLA	GRAY SAGE
ENCELIA CALIFORNIA	CALIFORNIA ENCELIA
*ERIOGONUM FASCICULATION	CALIFORNIA BUCKWHEAT
*DOMINANTS	

NATURE PLANTS/SALT LAKE CITY	801-582-0144
S & S SEEDS/SANTA BARBARA	805-965-5243
ENVIR SEED PRODUCERS/EL MONTE, CA	213-442-3330

APPENDIX D

That certain real property in the County of Riverside, State of California described as,

That portion of Section 1, Township 2 South, Range 6 West, San Bernardino Meridian, described as follows;

Commencing at the South one-quarter corner of said Section 1; Thence North $0^{\circ}12'53''$ East, along the Westerly line of the East one-half of said Section, a distance of 1142.04 feet to its intersection with the Northeasterly line of the land described in deed to the Metropolitan Water District of Southern California, recorded March 27, 1936 in Book 273 of Official Records, page 104, said point being the TRUE POINT OF BEGINNING; thence North $18^{\circ}55'49''$ West, along said Northeasterly line, a distance of 1533.59 to an angle point therein; thence continuing along the Easterly line of said Water District land, North $4^{\circ}31'40''$ West, a distance of 73.78 feet to Northerly line of the South one-half of said Section; thence North $89^{\circ}52'41''$ East along said Northerly line a distance of 509.06 feet to the center one-quarter corner of said section; thence North $0^{\circ}12'53''$ East, along said Westerly line of the East one-half of said Section, a distance of 568.10 feet to the Northerly line of the Southerly 568.09 feet of the Northwest one-quarter of said Section; thence North $89^{\circ}52'41''$ East along the last described Northerly line, a distance of 1300.00 feet; thence South $0^{\circ}12'53''$ West, parallel with said Westerly line of the East one-half of Section 1, a distance of 900.00 feet; thence Southwesterly, 1500 feet, more or less, to a point that bears South $89^{\circ}47'07''$ East 500.00 feet from the TRUE POINT OF BEGINNING; thence North $89^{\circ}47'07''$ West 500.00 feet to the TRUE POINT OF BEGINNING.

Containing approximately 60 acres.

Portion of Assessor Parcel numbers 173-17-15, 173-18-3&4

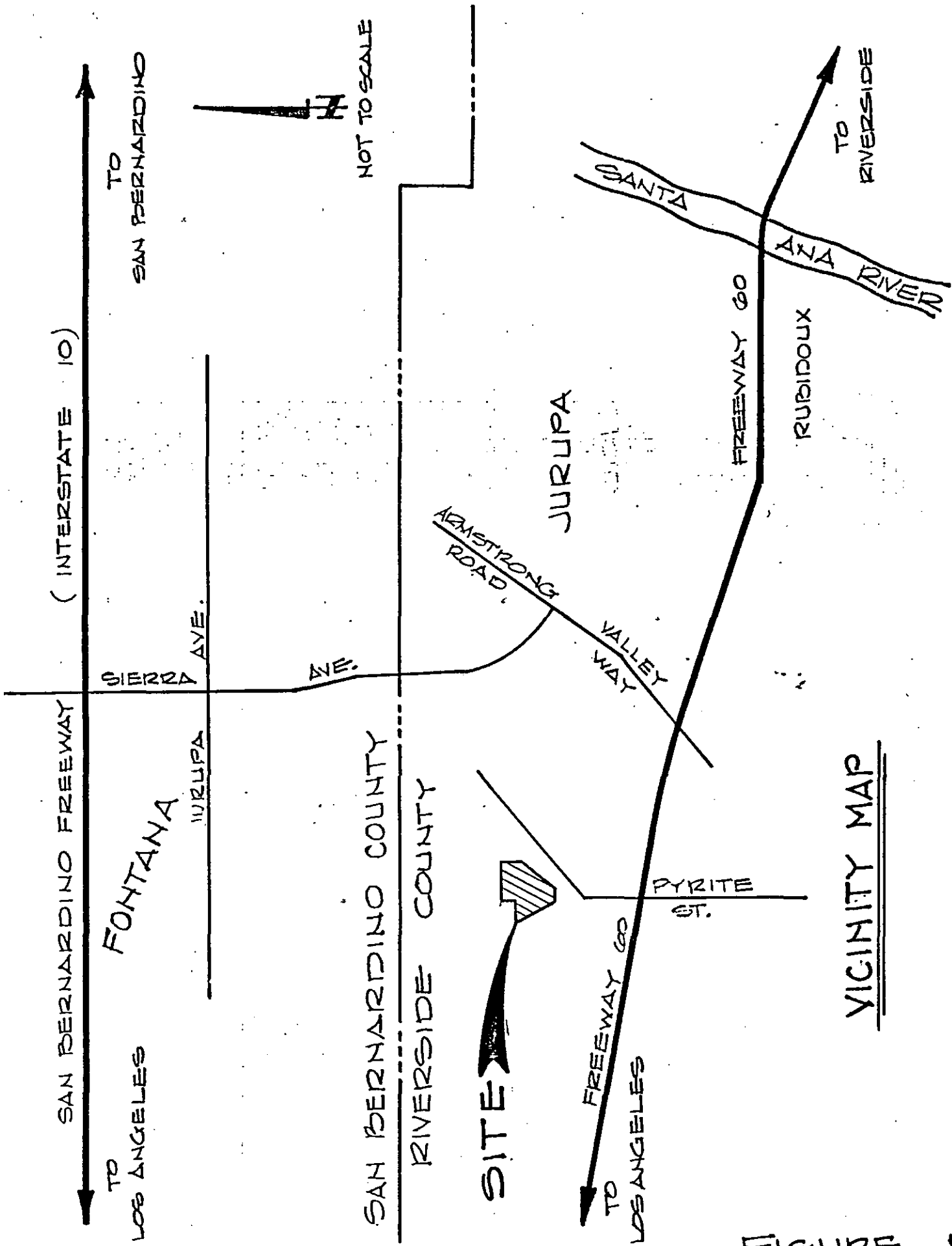


FIGURE 1

VICINITY MAP

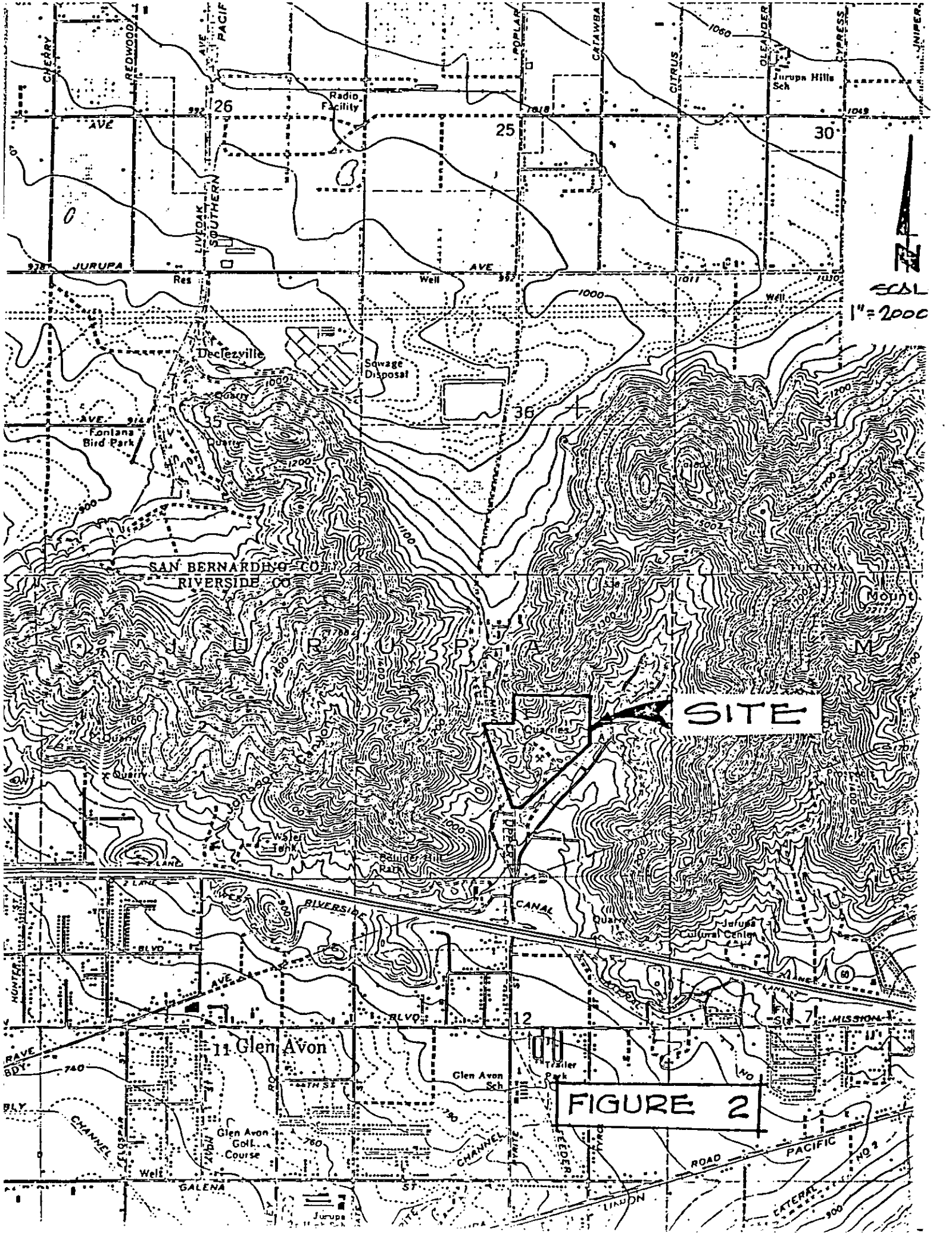
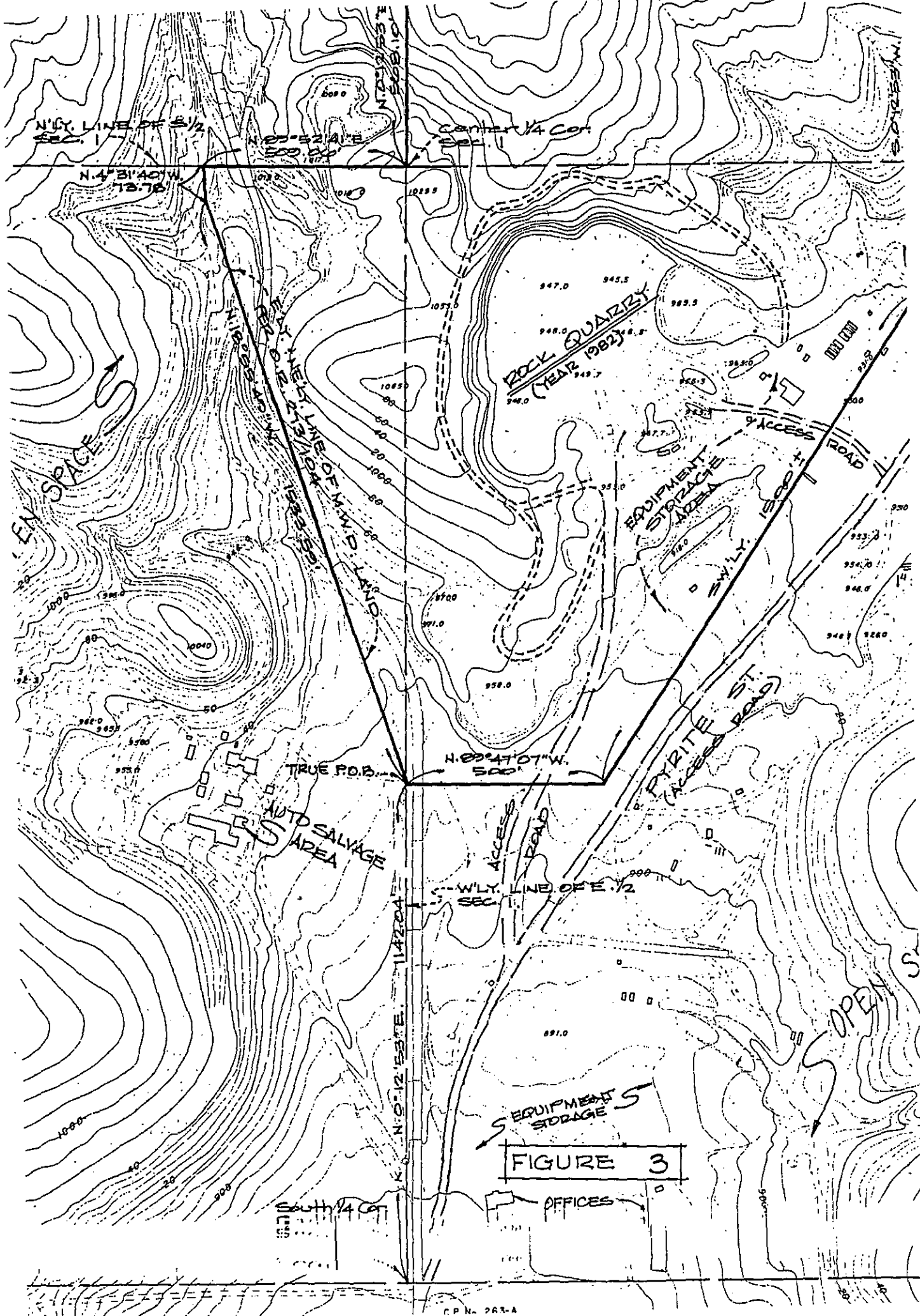


FIGURE 2



In addition, Pyrite, its contractors and subcontractors shall name Paul J. Hubbs, Lucile M. Hubbs and Paul Hubbs Construction Co. as additional insureds on general liability insurance certificates evidencing minimum coverage in the amount of \$2,000,000 prior to performing project work on the subject property.

Please indicate your agreement to the matters set forth above by signing and returning one copy of this letter to me.

Very truly yours,



Daniel Bergman
President, Pyrite Canyon Group, Inc.
In behalf of the Member Companies.



Paul J. Hubbs, Owner

7/29/83
Date

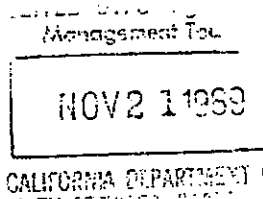
JOHN K. VAN DE KAMP
Attorney General

State of California
DEPARTMENT OF JUSTICE



3580 WILSHIRE BOULEVARD, ROOM 800
LOS ANGELES 90010
(213) 736-2304

November 15, 1989



(213) 736-2214

John Boyd, Esq.
Thompson & Colegate
3610 14th Street
Riverside, California 92502

Dear Mr. Boyd:

United States, California v. Stringfellow, et al.
U. S. D. C. No. CIV 83-2501 JMI

On Friday afternoon, ~~October 6, 1989~~, your client, Paul Hubbs, detonated two explosive blasts at his quarry in Glen Avon. With the assistance of consultants furnished by Ryland Associates, the Department of Health Services monitored these blasts for the purpose of determining whether they would pose any threat to the environment or to Department personnel or contractors working at the Stringfellow site. I'd like to take this opportunity to inform you not only of some problems that occurred, but also of the results of the monitoring. I hope you will accede to the Department's request that your client agree to coordinate the timing of future blasting with Department personnel.

Although the Department was told that the blasting would take place in the afternoon of October 6, they were not informed of the number of blasts or the approximate time they would take place. After learning that Friday morning that there would be two blasts -- one in the upper part of the north side of the quarry -- personnel from Lyles Construction had to cease work in the vicinity of the pretreatment plant.

The blasting took place between 2:10 and 2:30 p.m. Although it had been pre-arranged that there would be a five-second countdown prior to each blast, the first was not preceded by any countdown. Persons at the pretreatment plant noted a large amount of dust wafting into the air and moving over the plant after the first blast.

Between blasts, the notification procedures were clarified and a five-second countdown given prior to the second blast. The holes for this second blast were drilled into the top of the cliff face on the north hillside, at a higher elevation than previous blasts at the quarry. Once again, communications with Ryland Associates were confused and the five-second countdown was not given. This

almost prevented the second blast from being monitored.

Upon detonation, the explosives apparently channeled through fractures or joints in the rock and were released violently with a sharp crack similar to rifle fire. Fly rock, in some cases as large as baseballs, were hurled into the vicinity of the pretreatment area and channel area. This was precisely the location where Lyles Construction personnel had been working earlier in the day. Several pieces of rock were reported to have passed over the fence on the west side of Pyrite Street and the heads of spectators before impacting on the east side of the access road. Although no fly rock landed in the pretreatment plant area, pulverized rock fell at the plant coating the ground, the plant equipment, vehicles and offices. It took approximately 20 minutes for dust blown into the air from the second explosion to clear the air.

Both the Riverside County Fire Department, as well as the Riverside County Sheriff's Department, responded to the blasting.

Visual observations during monitoring indicated to the Department personnel that fly rock from blasting activities has the potential to cause harm certainly to workers in the area, as well as damage to machinery and equipment. Because of the proximity of the pretreatment plant to the north quarry face, there is an increased risk of such adverse consequences.

As the adjacent landowner, the State has the obligation to protect its personnel, contractors and property. Obviously, it is in the interest of your client, as well, to lessen the risk of harm to persons or damage to property. The Department believes that, by adhering to the following recommendations, the danger can be minimized.

- 1) Approximately two weeks prior to drilling, the company that will be performing the blasting should prepare a blasting plan and submit it to the State Stringfellow Project Engineering Geologist for review;
- 2) Future blasts should occur after 3:30 p.m., so that site and pretreatment plant personnel will not be working in the area;
- 3) Seismic monitoring should continue to ensure that vibration safety levels are maintained at a safe level;
- 4) The Riverside County Fire Department (Glen Avon Station) and the Sheriff's Department should be notified of impending blasts;
- 5) Blasts on the north quarry face should be smaller in

John Boyd, Esq.
November 15, 1989
Page 3

magnitude than this recent blast, so as to limit the possibility of fly rock damaging the pretreatment plant. The blast size, deck load and blast hole positioning should be determined in the blasting plan so as to maximize the scale distance. In order to minimize the potential for fly rock, the size of the individual deck loads may have to be decreased and the number of decks increased. The deck delay may need to be increased as well.

- 6) Because dust from the blast may possibly damage equipment at the pretreatment plant, future blasts ~~may~~ should be detonated when the winds will carry the dust away from the pretreatment plant.

In light of the damage to persons and property that can occur as a result of your client's blasting at the quarry, I am sure you will agree that these actions are reasonable. When we spoke on the telephone we both concurred that neither of us want to end up in court on this issue. Could you discuss the above requests with your client and let me know whether he will agree to the above measures.

Very truly yours,

JOHN K. VAN DE KAMP
Attorney General



DONALD A. ROBINSON
Deputy Attorney General

cc: Kenneth Moreno, Esq.
Beth Jines
Bryce Caughey, Esq.

OCTOBER 29, 1989

JOE ZIONY
STATE GEOLOGIST
1416 NINTH STREET
ROOM 1341
SACRAMENTO CA. 95814

RE: BLASTING AT HUBBS STRINGFELLOW QUARRY

DEAR MR. ZIONY:

I LIVE IN GLEN AVON IN RIVERSIDE COUNTY. MY WIFE AND I ARE EXPECTING OUR FIRST CHILD. I AM EMPLOYED AND WE ARE HEALTHY. BUT THE REASON I AM WRITTING TO YOU IS BECAUSE WE LIVE IN THE TOXIC PLUME OF THE NOTORIOUS STRINGFELLOW ACID PITS.

THE ACID PITS ALONE ARE OF GREAT CONCERN HERE AND A GREAT BURDEN UPON THE FEDERAL EPA AND THE STATE DEPARTMENT OF HEALTH SERVICES. THEY ARE MAKING EVERY EFFORT TO CLEAN UP THE MISTAKES OF POLLUTERS PAST.

WE ARE WRITTING TO YOU FOR YOUR GUIDENCE TO A PERIFERAL PROBLEM THAT COULD VERY WELL EXASSERBATE THE FLOW OF TOXINS INTO OUR COMMUNITY.

THERE IS A ROCK QUARRY ADJACENT TO THE WEST OF THE OLD STRINGFELLOW QUARRY. THEY HAVE DONE VERY LITTLE MINING OF GRANITE IN THE PAST 10-15 YEARS. HOWEVER, THIS YEAR, 1989, IS AN EXCEPTION TO THIER PAST. IN JANUARY OF THIS YEAR THEY BLASTED TO PROVIDE THEMSELVES WITH ROCK FOR FUTURE BUSINESS. IN APRIL THEY BLASTED AGAIN. THE PROBLEM IS THAT IN 1986 THEY DID A TEST BLAST USING APROXIMATELY 1320 lbs. OF EXPLOSIVES. THIS YEAR THEY USED 30,000 LBS. OF EXPLOSIVES IN AN UNMONITORED BLAST. THIS IS ONLY THE BEGINNING OF OUR COMPLAINTS.

THE HUBBS QUARRY HAS NO MINING PERMIT. THEY ARE OPERATING UNDER A VESTED RIGHT. UNDER THAT VESTED RIGHT AND STATE LAW THEY MAY CONTINUE TO MINE AS LONG AS NO SUBSTANTIAL CHANGE IS MADE IN THEIR MINING OPERATION.

WE HAVE WITNESSED THEIR OPERATION GO FROM 1 OR 2 TRUCKS PER WEEK (LEAVING THE QUARRY LOADED WITH ROCK) TO 10 TO 12 PER HOUR. UNTIL THIS YEAR NOBODY IN OUR HAD EVEN FELT THE BLASTS AT ALL. NOW THE BLASTING IS ACTUALLY HEAVY ENOUGH TO KNOCK THINGS OFF SHELVES UP TO A MILE AWAY.

WE FEEL THAT THE ALREADY FRACTURED BEDROCK WHICH ALLOWS TOXINS TO BE ABSORBED AND TO FLOW INTO OUR TOWN DOES NOT NEED TO BE DISTURBED ANYMORE. WE ALSO FEEL THAT ROCKS THROW INTO THE AIR BY HUBBS BLASTING MAY DAMAGE THE EQUIPMENT USED FOR CLEANUP AT THE STRINGFELLOW WASTE SIGHT.

THE STATE HEALTH DEPARTMENT ASSURED US THAT THE COUNTY WAS MONITORING ALL BLASTING AT THE HUBBS QUARRY. THE EPA TOLD US THAT IT WAS NOT A PROBLEM AS FAR AS THEY KNEW.

IT TURNS OUT THAT THE QUARRY WAS MONITORING THEMSELVES. HUBBS DID MONITOR AND HAD THESE RESULTS. (SEE ENCLOSURE).

WE ASK YOU TO READ SECTION 2710 OF THE STATE CODE ET SEC. TO ENSURE THAT WE ARE NOT GETTING THE SHORT END OF MR. HUBBS' STICK.

THANK YOU;

A handwritten signature in dark ink, appearing to read 'Sheldon', with a long horizontal flourish extending to the right.

JOHN SHELDON
DIRECTOR, INLAND EMPIRE ALLIANCE FOR SAFE WATER
8153 MISSION BLVD. #13
RIVERSIDE CA. 92509

714-360-0927 or 714-746-2562

M. J. Bester Drilling Co.

GENERAL ENGINEERING CONTRACTORS

State Contractors Lic. #808281

Mailing:
P.O. Box 248
El Cajon, CA 92022-0248

12485 Hwy. 57 No
Lakeside, CA 920
Phone (619) 443-71

SEISMOGRAPH REPORT

CUSTOMER PAUL HUBBS DATE 1/30/89

OPERATION QUARRY DISTANCE TO BLAST 2300'

BSU LOCATION GAIRD SHACK (PURITE RD.)

TRIG LVL. SEIS. 10 T.P.S.

TRIG LVL. SOUND 125 DB

P.P.V.'S L 0 IPS

T 0 IPS

V 0 IPS

RPPV 0 IPS

TIME 3:05 PM

CALIBRATION CHECKED OK

COMMENTS:

SEISMOGRAPH DID NOT TRIGGER

WHEN THE SEISMOGRAPH DOES NOT
TRIGGER THIS MEANS THE VIB
AND AIR BLAST LEVELS W
BELOW TRIGGER LEVELS

TG
N
4
6/16/89

FURTHER ANALYSIS UPON REQUEST

OPERATOR SIGNATURE [Signature]

JUN 30 1989 12:22

TONES HEADQUARTERS

M. J. Baxter Drilling Co.

GENERAL ENGINEERING CONTRACTORS

Mailing:
R.O. Box 245
El Cajon, CA 92022-0245

State Contractors Lic. #200361

12486 Hwy. 67 NW
Lakeland, CA 923
Phone (818) 443-75

SEISMOGRAPH REPORT

CUSTOMER PAUL HUBBS DATE 4/7/89

OPERATION QUARRY DISTANCE TO BLAST 2300'

SEU LOCATION GAIRD SHAK (PURITE RD)

TRIG LVL. SEIS. .10 T.P.S.

TRIG LVL. SOUND .N

P.P.V. '8	L	<u>0</u>	IPS
	T	<u>0</u>	IPS
	V	<u>0</u>	IPS
RPPV		<u>0</u>	IPS

TIME 5:30 PM

CALIBRATION CHECKED OK

COMMENTS:

PRINTER MALFUNCTION

RECORD DESTROYED

TO N 4
6/16/89

THE SEISMOGRAPH PRINTER BROKE D
DURING THE PRINT MODE AFTER T
BLAST. THE RECORD CANNOT BE
RETRIEVED

FURTHER ANALYSIS UPON REQUEST

JUN 30 '89 13:32

TOXICS HEADQUARTERS

PAGE 002